GOVERNMENT OF INDIA
ENVIRONMENT AND FORESTS
LOK SABHA

UNSTARRED QUESTION NO:3586
ANSWERED ON:18.04.2005
PERFORMANCE OF ARID ZONE FORESTRY RESEARCH INSTITUTE JODHPUR
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Will the Minister of ENVIRONMENT AND FORESTS be pleased to state:

(a) whether the Government is aware that Arid Zone Forestry Research Institute, Jodhpur is not concerned about the ground realities of the region and its achievements are not satisfactory;

(b) if so, the reasons therefore;

(c) if not, the details of research conducted by this institute since its establishment and the extent to which the research work has solved the regional problems;

(d) whether several complaints have been received in respect of administrative lapses, economic irregularities and corruption in this institute; and

(e) if so, the details thereof and action taken thereon so far?

Answer

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT AND FORESTS(SHRI NAMO NARAIN MEENA)

(a) Arid Zone Forestry Research Institute (AFRI), Jodhpur was established to carry out scientific forestry research in order to provide technology to enhance bio-productivity, increase in vegetative cover, and conservation of bio-diversity in the hot, arid and semi-arid regions of Rajasthan, Gujarat and Dadara & Nagar Haveli. Since its inception in 1988, AFRI has carried out the desired research in the field of forestry as per prioritization of research by Research Advisory Group which consists of representatives of various stakeholders such as forest department, universities, forest based industries, farmers, NGOs of the concerned state and the Govt. is aware of the prominent achievements of the Institute (Annexure I).

(b) Does not arise

(c) The prominent research achievements of the AFRI which helped in resolving the various regional problems are annexed (Annexure I).

(d) No, Sir.

(e) Does not arise.

ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (c) OF LOK SABHA UNSTARRED QUESTION NO. 3586 DUE FOR ANSWER ON 18.4.2005 REGARDING PERFORMANCE OF ARID ZONE FORESTRY RESEARCH INSTITUTE, JODHPUR

Research Achievements of AFRI, JODHPUR

Based on extensive survey, comprehensive report on the status of Oran and Gauchers (area, encroachment, degradation etc.) of Jodhpur district was prepared and suitable strategies developed for rehabilitation of these common property resources.
Urban aesthetic afforestation model was developed in Jodhpur city to improve microclimate of the area as requested by the local administration.
Medicinal plants germ plasm bank with 150 important medicinal plants has been established. Also arboratum is being established and 83 plant species has already been planted with the objective to identify the plants, conservation of gene pool, imparting education and peoples' awareness.
More than 350 traders trading in medicinal plants in Rajasthan have been surveyed for assessing the number of plants traded and their quantity. Cultivation practices for Cassia angustifolia have been developed and for other important species, it is in progress.
Seed testing and storage protocols for important tree species like Shisham, Khejari, Rohida, Babool, neem, Ker and Pilu have been developed.
A high tech nursery has been established to raise quality nursery seedlings. Potting media and size of root trainers have been

standardized. The seedlings have been distributed to farmers and other interested groups for planting on farm lands and other non-forest lands.

Lopping management was prescribed for Prosopis cineraria and Ailanthus excelsa for better tree growth and sustained fodder yield.

Prepared volume tables and developed growth and yield models for Dalbergia sissoo and Eucalyptus camaldulensis in IGNP area for harvesting the mature crop and sustainable management of the plantations as requested by the State Forest Departments of Rajasthan and Gujarat.

Communication and interaction is often inadequate between the researchers and the end users of the information they generate. Recognizing this gap, an international conference on multipurpose trees was organized with the aim to bring together scientists, foresters and all other stakeholders from around the world to evaluate the status of assessment techniques, genetic improvement, modeling & management of multipurpose trees and transferring the technology developed by AFRI to the end users.

Developed technology for rehabilitation of any barren degraded salt affected areas of arid Rajasthan by adopting double ridge mound and circular dished mounds planting techniques to enhance the survival of any plant species under waterlogged condition. This work is taken up for the first time in India

Three lesser known timber species viz. Prosopis juliflora, Acacia tortilis and Prosopis cineraria were treated with with CCA + chloropyrophos and seasoned. Value added products like sofa set, utility boxes, handicrafts items like candle stand, pencil/pen stand were made for cost effective utilization by local handicraft industries and local people.

Crude protein contents of various famine food (normally not utilized as food) was determined, Khejari bark, bui leaves and kumat seed were found to contain 23, 32 and 36 % crude protein content respectively indicating their utilization in famine times.

Methodology for preparation of Leaf protein concentrates of eleven important forestry tree species (specially neem and moringa) is developed.

Various silvipasture models based on Ziziphus mauritiana (tree) and Cenchus ciliaris (grass) at different spacings were developed in trials at Nagaur, Rohat (Pali) , Tulesar and Ostran (Jodhpur) for improved fodder production and demonstrated to villagers.

National and International trials laid for tree improvement for fodder and timber species like Ailanthus, Acacia, Neem, Rohida and Dalbergia(Sisham) for optimum productivity to meet the demands of the local people.

Neem trees with high oil and azadirachtin content are identified and studies have been conducted on different parameters for benefit of the local people

Organized seminar on International Neem network in 2001 for INN trails laid out in different countries, interaction and to obtain knowledge for further benefit of the people.

Thirty eight (38) CPTs of Rohida from different part of Rajasthan are identified and are in process of establishing heritability.

For tree improvement programme for Shisham, Eucalyptus and Babul selected 263 CPTs, 186 ha. of Seed Stands and established 29 ha. clonal seed orchard and 55 ha. seedling seed orchard in the states of Rajasthan and Gujarat.

Tissue culture protocol have been established for Neem, Ailanthus and Babul.

#Under UNDP Project (Strengthening and developing Forestry Research & Education) from 1992 to 2000, 10 adopted villages (Deolia, Bisnoi Ki Dhani, Jaleli Faujdaran, Jaleli Champavatan, Jaleli Ahincha, Kuri Bhagatasni, Sangariya, Dand Ki dhani, Melon Ki dhani, Bichli Dhani) of Jodhpur District and AFRI, Jodhpur were selected and demonstrations of planting techniques on the spot were given in which about 5000 farmers, women, and children were benefited. Also 60 farmers were taken on study tour to different parts of Rajasthan, Gujarat, Haryana and Western U.P.

Organized training programme on capacity building and eco sensitization of farmers, rural poor, panchyat raj institute functionary, forest field staff on development and sustainable management of life supporting systems, watershed management etc.

Also observed environmental day, national science day to aware the local masses on role forests and wild life and conservation of biodiversity.

Organized desert learning programme for school children's Delhi Central School.

A project on khejri mortality in Nagaur, Sikar, Churu and Jhujhunu has been taken up and certain biotic and abiotic have been detected out and the remedial measures suggested are: i)Lopping of khejri trees in alternate year is advisable in order to recover the trees . ii)The lopped portions/wounds should be pasted /treated with AFRI PASTE to check the fungal/ borer infestation.

Pests and Disease spectrum of important arid zone tree species in nurseries and plantations were prepared with the recommendations of remedial measures of economic important diseases/pests .

Biofertlizer project on arid zone tree species was taken up under WB (FREE) Project. Under this project mass inoculum production VAM fungi and other biofetlizers was taken up as per need of user agencies.

Biopesticidal efficacy of arid tree species viz., neem, ker, aak and anjan were tested against Rohida defoliator and some economic important pathogens.

In-situ rain water harvesting structures (maicro-catchment) like ring-pit, trench cum mound, soucers develop . Ring pit and trnch cum mound give the best results.

Sand dune stabilization using both tree species and surface vegetations i.e., medicinal herbs Cassia angustifolia and Cenchrus cxiliaris grasses for effective control of sand drift has been developed.

Prosopis cineraria (khezri) and Tecomella undulata (Marwar teak) based agro-forestry models have been developed. Optimum tree density at different age and sequence of agricultural crops has been worked out for maximizing total production of agro-forestry system in arid region.

Water use efficiency, irrigation levels, irrigation intervals of and nutrient withdrawal by Acacia nilotica, Dalbergia sissoo and Eucalyptus camaldulensis in arid sandy plane have been worked out.

Prospects of tree planting using industrial effluents and municipal sewage have been worked out through use of suitable amendment techniques.

Project on bio-draining and transpirational loss of water for reclamation of highly fertile waterlogged/ saline area in IGNP.